

PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE INSTALLATION OF LED COUNTDOWN PEDESTRIAN SIGNAL HEADS, ACCESSIBLE PEDESTRIAN PUSHBUTTONS, SIGNS, IP-BASED VIDEO DETECTION CAMERAS, AND LED SIGNAL HEADS AT THE INTERSECTION OF MD 528 AT OLD LANDING ROAD.

MD 528 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA SIX-PHASE FULL-TRAFFIC-ACTUATED MODE WITH ALTERNATE PEDESTRIAN PHASES FOR THE NORTH AND SOUTH LEGS OF THE INTERSECTION. THE MD 528 NORTHBOUND LEFT TURNS AND SOUTHBOUND U-TURNS WILL OPERATE IN EXCLUSIVE-PERMISSIVE PHASING.

CONTROLLER REQUIREMENTS

THE EXISTING FULL-TRAFFIC-ACTUATED EIGHT-PHASE TRAFFIC SIGNAL CONTROLLER HOUSED IN A BASE MOUNTED CABINET SHALL REMAIN. IP-BASED VIDEO DETECTION INTERFACE EQUIPMENT SHALL BE FURNISHED AND INSTALLED BY SHA. THE EXISTING 2-WIRE APS CENTRAL CONTROL UNIT SHALL REMAIN.

SPECIAL NOTES

APS WILL FUNCTION AS FOLLOWS:

TO CROSS MD 528 (COASTAL HIGHWAY):

- A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT MESSAGE WILL BE "WAIT TO CROSS COASTAL AT OLD LANDING. WAIT."
- B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

CONTACT PERSONS FOR DISTRICT #1 ARE AS FOLLOWS:

MR. KENNETH CIMINO
ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (410) 677-4040

MR. WAYNE WEICHMAN
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
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MR. GREG HOLSEY
ASSISTANT DISTRICT ENGINEER - CONSTRUCTION
(410) 677-4020

MR. BRUCE W. POOLE
UTILITY ENGINEER
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CONTACT PERSONS FOR OOTS ARE AS FOLLOWS:

MR. RICHARD L. DAFF, SR.
CHIEF, TRAFFIC OPERATIONS
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MR. ROBERT SNYDER
ASSISTANT DIVISION CHIEF
TRAFFIC OPERATIONS
(410)787-7630

MR. ED RODENHIZER
CHIEF, SIGNAL OPERATIONS
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MR. EUGENE BAILEY
CHIEF, SIGN OPERATIONS
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EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA.

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
9124	IP-BASED VIDEO DETECTION INTERFACE EQUIPMENT: 1-8 CAMERAS	EA	1
9570	SHEET ALUMINUM GROUND MOUNTED SIGN 1 - R7-4(2) 18"x24" 1 - R7-201a 9"x18"	SF	5
9571	SHEET ALUMINUM MAST ARM/POLE MOUNTED SIGN 2 - D-3(1) 96"x16" (DUAL FACED) 2 - D-3(1) 66"x16" (DUAL FACED) 4 - R10-3(1) 9"x15" 1 - R3-1 36"x36"	SF	85

EQUIPMENT LIST "B & C"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR.

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
1001	MAINTENANCE OF TRAFFIC	EA	2
5001	REMOVAL OF EXISTING PERMANENT PAVEMENT MARKINGS SYMBOLS OR LEGENDS	EA	535
5004	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES	LF	1070
5005	24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES	LF	20
6001	STANDARD TYPE A COMBINATION CURB AND GUTTER 12 INCH GUTTER PAN 8 INCH DEPTH	LF	165
6002	5 INCH CONCRETE SIDEWALK	SF	700
6003	DETECTABLE WARNING SURFACE FOR CURB RAMPS	SF	60
8001	12 INCH LED SIGNAL HEAD SECTION	EA	4
8004	8 INCH LED SIGNAL HEAD SECTION	EA	6
8008	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS	EA	3
8009	BREAKAWAY PEDESTAL POLE (ANY SIZE)	EA	3
8015	LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEAD	EA	4
8023	REMOVE & DISPOSE OF EQUIPMENT (PER ASSIGNMENT)	EA	1
8028	VIDEO DETECTION CAMERA AND CABLE ANY LENGTH	EA	4
8033	DISCONNECT, PULL-BACK & REROUTE CABLES	LF	30
8036	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT-BORED	LF	200
8037	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT-SLOTTED	LF	30
8038	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED	LF	90
8039	WOOD SIGN SUPPORTS UP TO 4' X 6'	LF	16
8040	INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)	SF	89
8042	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE	LF	320
8046	FURNISH AND INSTALL ELECTRICAL HANDHOLE	EA	4
8053	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)	LF	550
8055	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)	LF	635
8056	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)	LF	1230

C. ALL MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR EXCEPT FOR THE EXISTING APS PUSHBUTTONS TO BE REMOVED, WHICH SHALL BE RETURNED TO SHA.

PHASING CHART

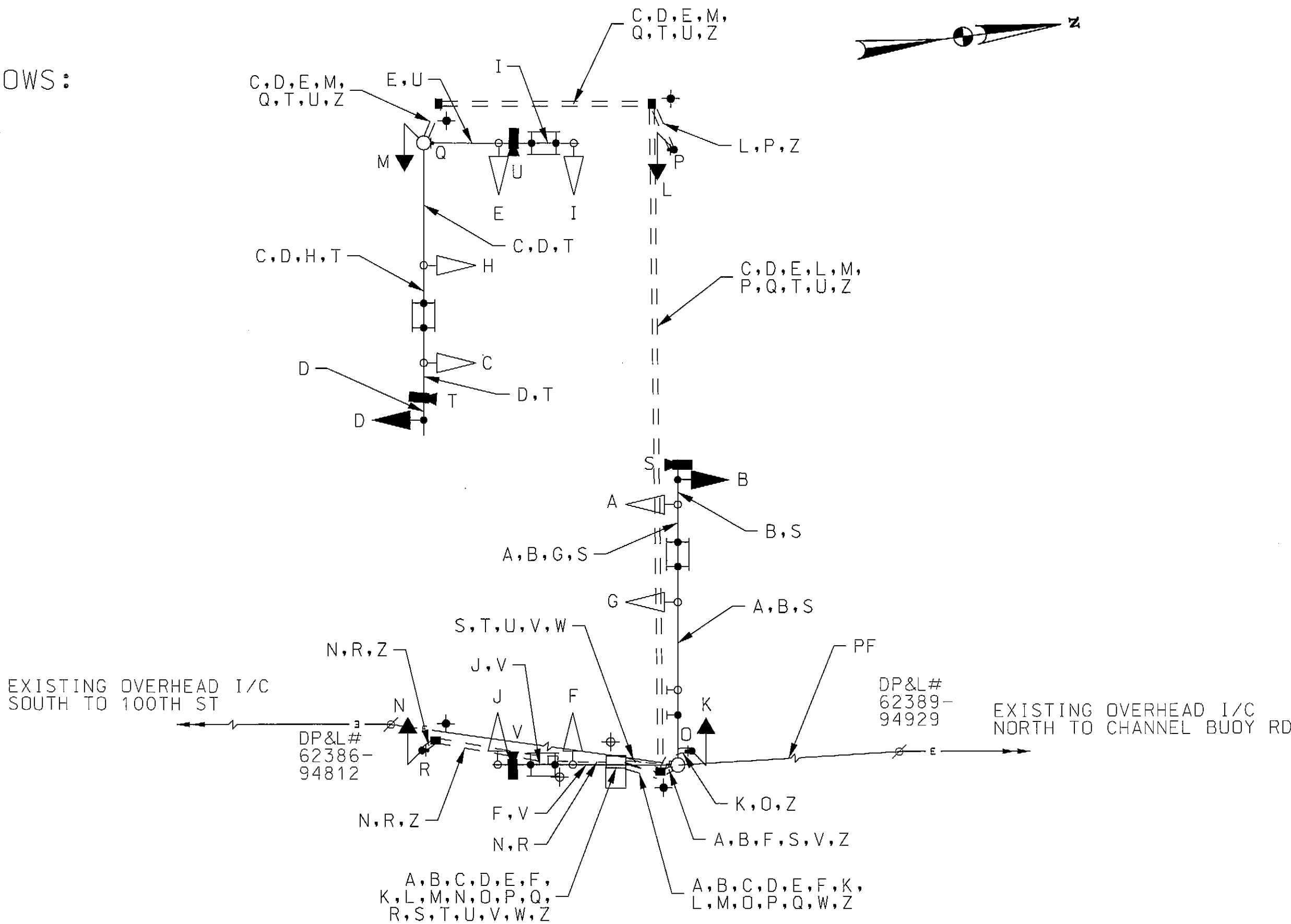
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
PHASE 1 AND 5	←G/R	←G/R	R	←G/R	←G/R	R	R	R	R	R	DW	DW	DW	DW
CHANGES TO PHASES 1 AND 6, 2 AND 5 OR 2 AND 6														
PHASE 1 AND 6	←G/G	←G/G	G	R	R	R	R	R	R	R	DW	DW	DW	DW
1 AND 6 CHANGE	←Y/G	←Y/G	G	R	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 2 AND 5	R	R	R	←G/G	←G/G	G	R	R	R	R	DW	DW	DW	DW
2 AND 5 CHANGE	R	R	R	←Y/G	←Y/G	G	R	R	R	R	DW	DW	DW	DW
PHASE 2 AND 6	G	G	G	G	G	G	R	R	R	R	DW	DW	DW	DW
2 AND 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	DW	DW	DW	DW
PHASE 4 AND 8	R	R	R	R	R	R	G	G	G	G	DW	DW	DW	DW
4 AND 8 CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	DW	DW	DW	DW
PHASE 4 AND 8 ALT	R	R	R	R	R	R	G	G	G	G	WK	WK	WK	WK
PED CLEARANCE/ COUNTDOWN	R	R	R	R	R	R	G	G	G	G	FL/DW	FL/DW	FL/DW	FL/DW
4 AND 8 ALT CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	DW	DW	DW	DW
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK

GENERAL NOTES

- THE CONTRACTOR SHALL VERIFY ALL PROPOSED POLE LOCATIONS PRIOR TO INSTALLATION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLE TO THE APPROPRIATE TERMINALS AND PROPERLY LABELING EACH CABLE.
- ALL UNUSED CABLE SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.
- UNDERGROUND UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING "MISS UTILITY" PRIOR TO CONSTRUCTION SO THAT ALL UTILITIES MAY BE LOCATED IN THE FIELD. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN THE UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IMMEDIATELY SO THAT THE CONFLICT MAY BE RESOLVED.
- ALL PEDESTAL FOUNDATION TOPS SHALL BE INSTALLED FLUSH WITH SIDEWALK GRADE.
- LOCATION OF ACCESSIBLE PEDESTRIAN SIGNAL PUSHBUTTONS MUST MEET LOCATION REQUIREMENTS OF MUTCD SECTION 4E.09 AND FIGURE 4E.2 AND THE NCHRP PUBLICATION, "ACCESSIBLE PEDESTRIAN SIGNALS: GUIDE TO BEST PRACTICE." IF NOT MET, THE CONTRACTOR IS TO STOP WORK ON PUSHBUTTON LOCATIONS UNTIL A DESIGN WAIVER IS OBTAINED, APPROVED BY THE DIRECTOR, OFFICE OF TRAFFIC AND SAFETY.
- PUSHBUTTONS ARE TO BE LOCATED SO THAT THEY CAN BE ACTIVATED BY A PERSON IN A WHEELCHAIR REACHING LESS THAN 18" FROM A 60" X 60" LEVEL LANDING AREA WITH A CROSS SLOPE OF LESS THAN OR EQUAL TO 2%.
- THE 10' SEPARATION BETWEEN PUSHBUTTONS IS TO BE MEASURED FROM FACE OF PUSHBUTTON TO FACE OF PUSHBUTTON, NOT CENTER OF POLE TO CENTER OF POLE.
- PUSHBUTTON ARROWS AND SIGNS ARE TO BE ORIENTED PARELLEL TO THE CROSSING FOR WHICH THEY ARE INTENDED.
- THE CONTRACTOR SHALL CAP AND ABANDON CONDUIT FEEDING SIGNAL EQUIPMENT THAT IS REMOVED.

WIRING KEY

A,B,C, D,E,F	7-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
G,H,I,J, K,L,M,N	5-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
O,P,Q,R	2-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
S,T,U,V	IP-BASED VIDEO DETECTION CAMERA CABLE
W	DISCONNECT, PULL BACK & REROUTE EXISTING INTERCONNECT CABLE
Z	STRANDED BARE COPPER GROUND WIRE (NO. 6 AWG)
PF	EXISTING OVERHEAD POWER FEED
⬤	PROPOSED GROUND ROD
⊕	EXISTING GROUND ROD



TOD NO: XX661-28
SHA NO: WO209C56
MD 528 @ Old Landing Road

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SHA

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

MD 528 (COASTAL HIGHWAY) AT
OLD LANDING ROAD
OCEAN CITY, MARYLAND

REVISIONS

GENERAL INFORMATION SHEET

SCALE NONE DATE JULY 2012 CONTRACT NO. XX6615185

DESIGNED BY WFW COUNTY WORCESTER

DRAWN BY WFW LOGMILE 23052802.52

CHECKED BY BJB TMS NO. K290

FAP NO. TOD NO.

TS NO.1375E-61 DRAWING SP-2 OF 2 SHEET NO. 2 OF 4

PLOTTED: Monday, July 09, 2012 AT 09:11 AM
FILE: \\nwm\2009\2009\0618\0618\0618\Task 50_MD 528 at Old Landing\GADD\p8G-0002_MD528@OldLanding-GI.dgn